

REMARKS

By the present amendment, claims 9-16 have been canceled without prejudice or disclaimer and claims 17-24 have been added to obviate the examiner's objections to the claims and/or to further clarify the concepts of the present invention. Entry of these amendments is respectfully requested.

In the Office Action, claims 9-16 were rejected under the second paragraph of 35 USC § 112 as being indefinite. Specifically, it was noted that these claims depend from non-elected claims. As was stated above, claims 9-16 have been cancelled and claims 17-24 have been added. It is submitted that these newly added claims are in full conformity with the provisions of the cited statute. Accordingly, withdrawal of the rejection under the second paragraph of 35 U.S.C. § 112 is respectfully requested.

Claims 9-12 were rejected as being anticipated under 35 USC § 102(b) by the Japanese patent publication cited in applicants' Information Disclosure Statement. Reconsideration of this rejection in view of the above claim amendments and the following comments is respectfully requested.

Before discussing the rejection in detail, a brief review of the presently claimed

invention may be quite instructive. The presently claimed invention is directed to an electrically conductive crown-shaped roll. This roll is produced by a production method comprising the steps of providing a metal core; and extruding a rubber material on the metal core while variably controlling an amount of the rubber material adhering on the metal core along a length of the metal core. An important feature of the invention is that the rubber layer has a crown shape formed unitarily on the metal core. It is submitted that such a crown-shaped roll is not taught or suggested by the cited Japanese patent publication.

More particularly, the cited Japanese patent publication is disclosed in page 3, line 10 to page 4, line 4 of the present specification. According to the publication, an electrically conductive thin layer of a thermoplastic resin is provided on a base layer formed in a thick wall tubular shape or roll. In so providing the electrically conductive thin layer, it is formed to have a smaller thickness at opposite ends of the roll and a greater thickness at a middle portion of the roll. Thereafter, a shaft is inserted into the center of the tubular base layer of the roll.

As set forth above, the crown-shaped layer is the rubber layer formed on the metal core according to the present invention. In distinct contrast, according to the cited patent publication, the electrically conductive thin layer of a thermoplastic resin is formed on the base layer. Therefore, the layer intended to be formed into a crown

shape is the rubber layer according to the present invention whereas the layer intended to be formed into a crown shape is the electrically conductive thin layer according to the cited patent and is an important difference between the presently claimed invention and that of the cited publication.

In addition, the position where the intended layer is formed is the metal core according to the present invention whereas the position where the intended layer is formed is on the base layer according to the cited publication. Furthermore, the material of the layer is rubber according to the present invention whereas it is a thermoplastic resin according to the cited publication and is another important distinction between the presently claimed invention and the disclosure of the cited publication.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 102(b) and allowance of newly added claims 17-20 over the cited Japanese patent publication are respectfully requested.

Claims 13-16 were rejected under 35 USC § 103(a) as being unpatentable over the same Japanese patent publication in view of the '138 patent publication to Hirayama. In making this rejection, the latter publication was relied upon for teaching the inclusion of silica in a conductive roll. Reconsideration of this rejection in view of

the above claim amendments and the following comments is respectfully requested.

The above remarks relative to the teaching deficiencies of the cited Japanese patent publication are reiterated with regard to this rejection. It is submitted that the patent to Hirayama et al does not supply these teaching deficiencies. More particularly, a roller according to the Hirayama et al patent comprises a roller core, an electrically conductive layer provided on a circumferential surface of the roller core and a covering layer provided on the outer circumferential surface of the conductive layer. Further, silica is contained in the covering layer, not in the conductive layer, as is disclosed on page 4, paragraph 43. Furthermore, the covering layer containing silica is not made of rubber, as is disclosed on page 3, paragraph 37. Therefore, even if the teachings of the cited two patent publications were combined, a person of ordinary skill in the art would not be able to achieve the presently claimed invention where the rubber material contains silica as is now recited in claims 21 to 24.

For the reasons stated above, withdrawal of the rejection under 35 U.S.C. § 103(a) and allowance of claims 21-24 over the cited patent publications are respectfully requested.

In view of the foregoing, it is submitted that the subject application is now in condition for allowance and early notice to that effect is earnestly solicited.

Serial Number: 10/690,511

OA Dated 6/4/04

Amdt. dated 9/7/04

In the event this paper is not timely filed, the undersigned hereby petitions for an appropriate extension of time. The fee for this extension may be charged to Deposit Account No. 01-2340, along with any other additional fees which may be required with respect to this paper.

Respectfully submitted,

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